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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,165

08/29/2008

Andreas Ruefer

20040252-3

4124

22878

7590

03/24/2011

Agilent Technologies, Inc. in care of:

CPA Global

P. O. Box 52050

Minneapolis, MN 55402

EXAMINER

BALL, JOHN C

ART UNIT

PAPER NUMBER

1759

NOTIFICATION DATE

DELIVERY MODE

03/24/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPOPS.LEGAL@agilent.com

Agilentdocketing@cpaglobal.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,165	<b>Applicant(s)</b> RUEFER ET AL.	
	<b>Examiner</b> J. CHRISTOPHER BALL	<b>Art Unit</b> 1759	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/21/2006</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Summary***

1. This is the initial Office Action based on the RUEFER et al. application filed under the Patent Cooperation Treaty on December 6, 2004, now a US National Stage Application.
2. Claims 1-10 are currently pending and have been fully considered.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 9 recites the limitation "the physical parameter measured" at the end of the claim. There is insufficient antecedent basis for this limitation in the claim, as no mention in claim 8 is made to measurement of any physical parameter.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by RAMSEY (US 6,001,229).

Regarding claim 1, RAMSEY discloses an apparatus and method for performing microfluidic manipulations, wherein is taught a sample loading device for loading and injecting a sample of a specimen, comprising:

an injector (Col. 10, lines 37-38) adapted for injecting a specimen from a specimen reservoir (Col. 10, lines 45-46) into an injection channel, termed a sample channel (Col. 10, lines 48-49);

the injection channel having a sample injection spot, termed an intersection (Col. 10, lines 47-50) for injecting a sample of the specimen into a separation device adapted for separating the sample, in the form of a separation channel (Col. 10, lines 49-50); and

a control unit adapted for detecting a time dependent electrical parameter of the fluid along the injection channel and for controlling the separation device in response thereto (Col. 14, line 66 – Col. 15, line 13).

Regarding claim 2, RAMSEY teaches the parameter is a potential difference (Col. 15, lines 5-9).

Regarding claim 3, RAMSEY teaches the sample loading device comprises the specimen reservoir (e.g., 30, Figure 1) comprises an inlet receiving the specimen comprising a fluid (Col. 5, lines 39-48), the inlet arranged near the connection to the second part of the injection channel (e.g., 48 & 46, Figure 1).

Regarding claim 4, RAMSEY teaches the sample loading device comprises a first electrode (e.g., 38, Figure 1) arranged at a first end of the injection channel (e.g., 48 & 52, Figure 1) and a second electrode (e.g., 42, Figure 1) arranged at a second end of the injection channel, the first and second electrodes being adapted for providing an electrical field along the injection channel (Col. 5, lines 25-35).

Regarding claim 5, RAMSEY teaches the sample loading device comprises a first electrode (e.g., 40, Figure 1) and a second electrode (e.g., 44, Figure 1) arranged in the separation channel (50 & 54, Figure 1), wherein the sample injection spot (e.g., 46, Figure 1) is arranged in between the first and second electrode.

Regarding claim 6, RAMSEY teaches the sample loading device comprises the injection channel incorporated with a glass body (Col. 4, lines 13-18).

Regarding claim 7, RAMSEY teaches an injector (Col. 10, lines 37-38) adapted for injecting a specimen from a specimen reservoir (Col. 10, lines 45-46) into an injection channel, termed a sample channel (Col. 10, lines 48-49);

the injection channel having a sample injection spot, termed an intersection (Col. 10, lines 47-50) for injecting a sample of the specimen into a separation device adapted for separating the sample, in the form of a separation channel (Col. 10, lines 49-50); and

a control unit adapted for detecting a time dependent electrical parameter of the fluid along the injection channel and for controlling the separation device in response thereto (Col. 14, line 66 – Col. 15, line 13), and

a separation device adapted for receiving the sample from the sample loading device and for separating the sample (Col. 15, lines 30-36).

Regarding claim 8, RAMSEY discloses an apparatus and method for performing microfluidic manipulations, wherein is taught a method for loading and injecting a sample of a specimen, comprising:

injecting a specimen from a specimen reservoir into an injection channel (Col. 5, lines 25-35), wherein the injection channel has a sample injection spot (e.g., 46, Figure 1) for injecting a sample into a separation device (Col. 4, lines 42-59);

detecting a time dependent electrical parameter of the fluid along the injection channel (Col. 14, line 66 – Col. 15, line 13); and

controlling the separation device in response to the detected parameter (Col. 14, line 66 – Col. 15, line 13).

Regarding claim 9, RAMSEY teaches detecting the parameter comprises determining a peak value of the parameter measured (Col. 15, lines 5-11 & 49-64).

Regarding claim 10, RAMSEY teaches the method further comprising separating the received sample (evidenced by data Figure 6).

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. CHRISTOPHER BALL whose telephone number is (571)270-5119. The examiner can normally be reached on Monday through Thursday, 9 am to 5 pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on (571) 272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. CHRISTOPHER BALL/  
Examiner, Art Unit 1759

03/18/2011